UNITED STATES PATENT AND TRADEMARK OFFICE

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10/576,899	04/19/2006	Toni Paila	886A.0023.U1(US)	6105

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EXAMINER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 June 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-11,13-20,43-45 and 47-52* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 3-11, 13-20, 43-45 and 47-52* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1.   This Action is in response to Applicant's amendment filed on 06/25/2009. Claims

1, 3-11, 13-20, 43-45 and 47-52 are still pending in the present application. This Action

is made **FINAL.**

Response to Arguments

2.   Applicant's arguments filed on 06/25/2009 have been fully considered but they

are not persuasive.

After carefully revising the office action pertinent to the present response and

remarks, the following main point(s) have been identified:

1) The Applicant states that Bokhorst does not disclose or suggest at least where

claim 1 relates to "a controller configured to determine which service components of the

plural service components of the one or more services are required service

components," (refer to page 8 lines 2-5 of the Applicant's remarks).

Regarding point **1)**, as can be seen in the presented citation below from

Bokhorst's invention, an access point transmits traffic indicator message (TIM) to a

plurality of mobile stations. Each of the mobile station will determine, based on the TIM,

whether they are required to receive data message (i. e., service component) of a

plurality of data messages that are transmitted in a particular interval. After determining

whether they are required to receive data messages, each mobile station will stay

awake to receive the data messages according to the TIM. Those mobile stations that

are not required to receive any data message will doze until the next transmission of the

TIM. This clearly shows that, each mobile station is configured to determine whether

they are required to receive data messages transmitted during a particular interval.

Bokhorst, column 5 lines 31-49:

    (12)   Proceeding with the operational description, it is assumed
    that the next TIM message TIM-2 indicates that messages are to be
    transmitted to stations 1 and 2. Thus, stations 1 and 2 remain
    awake at least until the reception of the next TIM message, and
    their doze timers are not effective. A message to station 1 is
    transmitted during time interval 140, the receipt thereof
    resulting in a data interrupt to the processor of station 1, as
    shown by arrow 142. During time interval 144, a message for
    station 2 providing a data interrupt to its processor as shown by
    arrow 145. During time interval 146, a second message for station
    1 is transmitted, the receipt thereof resulting in a data
    interrupt to the processor of station 1, as shown by arrow 148.
    It should be understood that since stations 1 and 2 remain awake
    at least until the reception of the next TIM message, then any
    messages that arrive at the access point in the current TIM
    interval before the transmission of the next TIM message can also
    be transmitted during such current TIM interval to stations (such
    as stations 1 and 2) which are awake during that interval.

Bokhorst, Figure 6:

FIG. 6
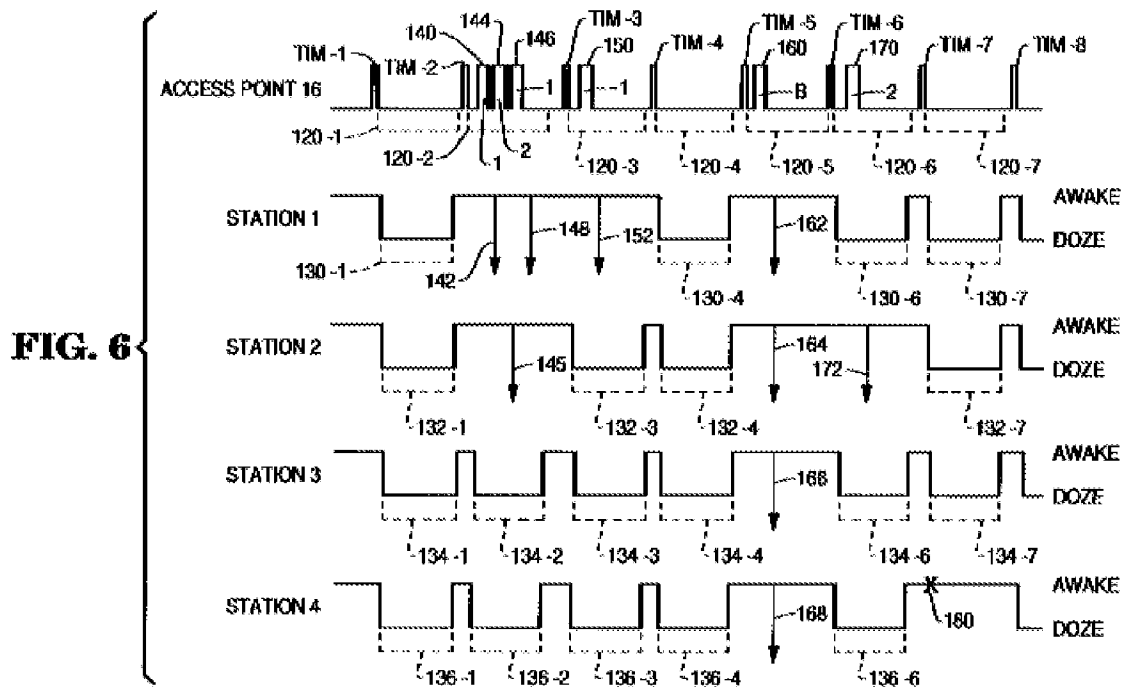
2) The Applicant states that Liu does not disclose at least where claim 1 recites

in part "the receiver configured to receive timing information, where the timing

information is identifying a timing of transmission of each of the required service

components and a timing of transmission of each of the service components that are

not required to be received," (refer to page 8 line 24 – page 9 line 2 of the Applicant's

remarks).

Regarding point 2), Liu at paragraph 87 and figure 6B teaches transmitting a

beacon with time information to a plurality of mobile stations. The mobile stations

determining by the beacon information, what time is data transmitted to them so they

can stay awake to receive the transmitted data from the access point. If determined by

the beacon information that not data is transmitted at a particular time interval, the

mobile station sleeps until the next beacon. Thus, by looking at the beacon information,

each mobile station can determine the time that they are required to received data and

the time when they are not required to received any data.

Liu, paragraph 87 lines 1-12:

> [0087] In FIG. 6A, timing diagram 400 illustrates transmission of
> the beacon from the AP. The beacon includes the TIM comprising
> the AID and SIV frame protocol. In response 420, STA1 finds its
> AID is indicated in the TIM to receive data from the AP, so STA1
> remains awake to receive the downlink CF data. In response 430,
> STA2 also finds itself buffering data to be transmitted to the
> AP, so STA2 also remains awake to send a request for uplink data
> and to receive a poll for the uplink CF transmission. In response
> 440, STA3 does not find its AID indication in the TIM or any data
> to be transmitted to the AP, so STA3 is allowed to go back to
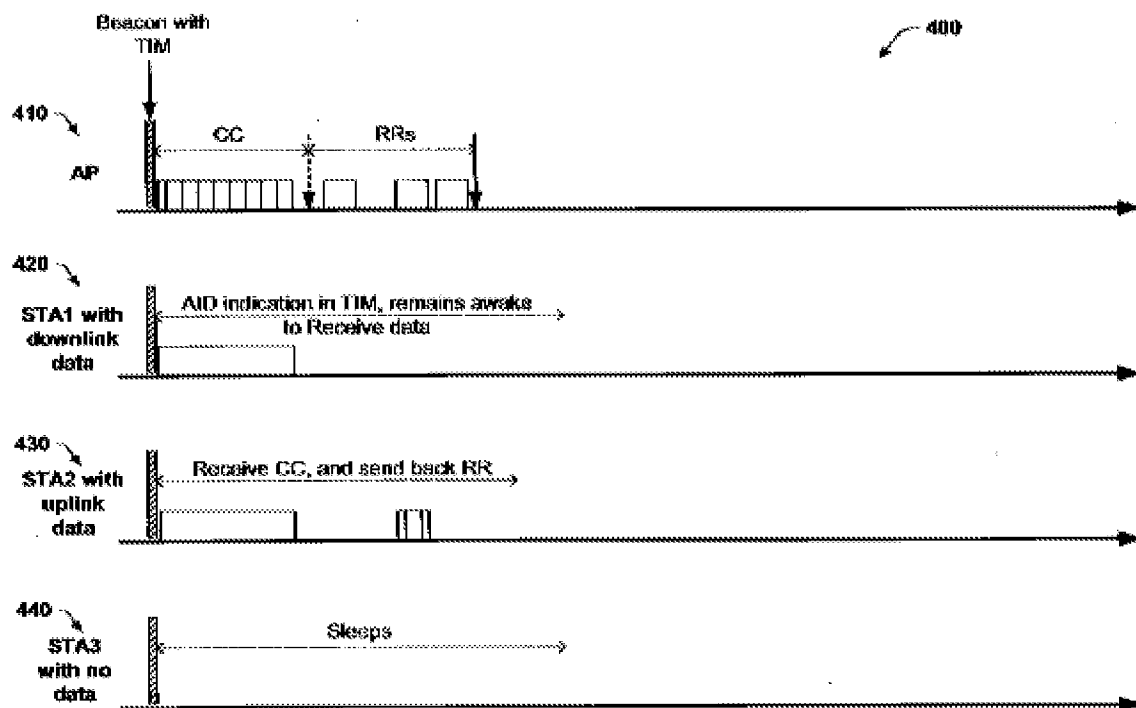> sleep mode till the next beacon.

Liu, Figure 6B:

FIG. 6B

3) The Applicant states that Liu does not disclose that "the controller [is] further

configured, based on the received timing information, to enable to receiver to receive

signals at one or more times in a burst period corresponding to the required service

components and to disable the receiver at one or more times in the burst period

corresponding to the service components that are not required to be received," as in

claim 1 (refer to page 10 lines 1-5 of the Applicant's remarks).

Regarding point **3),** as shown in response regarding to point 2 above, each of the

mobile station will determine whether data is to be transmitted to them at a particular

interval. When determined that data is to be received at a particular time interval, the

mobile station will stay awake (i. e., enable receiver) otherwise, go to sleep (i. e.,

disable the receiver) when no data is to be transmitted in a particular time interval.

Therefore, the argued features and amendments to claims 1, 11 and 45 are

written such that they read upon the cited reference(s).

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 1, 3-11, 13-20 and 43-45, 47-52 are rejected under 35 U.S.C. 103(a) as

being unpatentable over van Bokhorst et al. (US 6192230 B1), hereafter "Bokhorst," in

view of Gubbi et al. (US 6865609 B1), hereafter "Gubbi," further in view of Liu et al. (US

20040190467 A1), hereafter "Liu."

Consider claim 1, Bokhorst discloses an apparatus (**fig. 2**) comprising: a

controller (**fig. 2 #34**) configured to determine which service components of the plural

service components of the one or more services are required service components (**see

col. 5 lines 31-35, col. 6 lines 64-67**); the controller configured based on the detecting,

to determine service components that are not required to be received (**see col. 6 lines

64-67**). Bokhorst, however, does not particular refer to a receiver configured to receive

plural service components of one or more services that are datacast sequentially within

a burst.

Gubbi, in analogous art, teaches a receiver configured to receive plural service components of one or more services that are datacast sequentially within a burst (see col. 3 lines 23-27, col. 11 lines 50-60, col. 18 lines 64-67, col. 19 lines 1-4).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Bokhorst and have it include a receiver configured to receive plural service components of one or more services that are datacast sequentially within a burst, as taught by Gubbi. The motivation would have been in order to facilitate the allocation bandwidth (see col. 4 lines 21-29).

Bokhorst as modified by Gubbi, however, does not particular refer to the receiver configured to receive timing information, where the timing information is identifying a timing of transmission of each of the required service components and a timing of transmission of each of the service components that are not required to be received; the controller further configured, based on the received timing information, to one of enable the receiver to receive signals at one or more times in a burst period corresponding to the required service components, and to disable the receiver at one or more times in the burst period corresponding to the service components that are not required to be received.

Liu, in analogous art, teaches the receiver configured to receive timing information, where the timing information is identifying a timing of transmission of each of the required service components and a timing of transmission of each of the service

components that are not required to be received (**see fig. 6A, pars. 0087 lines 1-6,
0089 lines 1-6**); the controller further configured, based on the received timing

information, to one of enable the receiver to receive signals at one or more times in a

burst period corresponding to the required service components, and to disable the

receiver at one or more times in the burst period corresponding to the service

components that are not required to be received (**see figs. 6B-D, pars. 0088 lines 5-7,
0089 lines 1-6, 0090 lines 1-13**).

It would have been obvious to a person of ordinary skill in the art at the time the

invention was made to modify the invention of Bokhorst as modified by Gubbi and have

it include the receiver configured to receive timing information, where the timing

information is identifying a timing of transmission of each of the required service

components and a timing of transmission of each of the service components that are

not required to be received; the controller further configured, based on the received

timing information, to one of enable the receiver to receive signals at one or more times

in a burst period corresponding to the required service components, and to disable the

receiver at one or more times in the burst period corresponding to the service

components that are not required to be received, as taught by Liu. The motivation would

have been in order to minimize power consumption when a receiver is not scheduled to

receive any data (see par. 0024 lines 1-5).

Consider claim 3, Bokhorst as modified by Gubbi and Liu discloses claim 1.

Gubbi also teaches in which the controller is configured to determine which of the

service components are required to be received on the basis of a comparison of

receiver capability information and received service component data type information

(see col. 11 lines 55-66). The motivation would have been in order to manage latency

depending on the data type (see col. 11 lines 55-66).

Consider claim 4 Bokhorst as modified by Gubbi and Liu discloses claim 3. Gubbi

also teaches in which the controller is configured to source the received service

component data type information on the basis of a received service component identifier

(see fig. 4, col. 11 lines 33-35 and 41-49). The motivation would have been in order to

provide acknowledgements (see fig. 4, col. 11 lines 33-35 and 41-49).

Consider claim 5, Bokhorst as modified by Gubbi and Liu discloses claim 1.

Gubbi also teaches in which the controller is configured to determine which of the

service components are required to service components on the basis of a comparison

of receiver classification information and received service component classification

information (see col. 11 lines 52-60). The motivation would have been in order to

manage latency depending on the type of data type (see col. 11 lines 52-60).

Consider claim 6, Bokhorst as modified by Gubbi and Liu discloses claim 5.

Gubbi also teaches in which the controller is configured to source the received service

component classification information on the basis of a received service component

identifier (see fig. 4, col. 11 lines 33-35 and 41-49). The motivation would have been in

order to manage latency depending on the data type (see col. 11 lines 52-60).

Consider claim 7, Bokhorst as modified by Gubbi and Liu discloses claim 5. Gubbi also teaches in which the receiver classification information is determined by a setting of the apparatus (see col. 11 lines 62-67 and col. 12 line 1). The motivation would have been in order to manage latency depending on the data type (see col. 11 lines 52-60).

Consider claim 8, Bokhorst as modified by Gubbi and Liu discloses claim 7. Gubbi also teaches in which the classification setting is automatically adjustable in dependence on one or more apparatus parameters (see col. 11 lines 62-67 and col. 12 line 1). The motivation would have been in order to manage latency depending on the data type (see col. 11 lines 52-60).

Consider claim 9, Bokhorst as modified by Gubbi and Liu discloses claim 1. Gubbi also teaches in which the controller is arranged to notify characteristics of the apparatus to a remote station (see fig.1 col. 2 lines 40-48). The motivation would have been in order to provide acknowledgements (see fig.1 col. 2 lines 40-48).

Consider claim 10, Bokhorst as modified by Gubbi and Liu discloses claim 1. Gubbi also teaches in which the terminal is configured to notify a service being consumed to the remote station (see col. 19 lines 26-30). The motivation would have been in order to provide acknowledgements (see fig.1 col. 2 lines 40-48).

Consider claims 11, 13-20, these are method claims corresponding to apparatus claims 1, 3-10. Therefore, they have been analyzed and rejected based upon the apparatus claims 1-10 respectively.

Consider claim 43, Bokhorst as modified by Gubbi and Liu discloses claim 1. Bokhorst also teaches wherein the apparatus comprises a mobile receiver terminal (see fig. 2 #30, col. 3 lines 42-45).

Consider claim 44, Bokhorst as modified by Gubbi and Liu discloses claim 11. Bokhorst also teaches method of claim 11 performed in a mobile receiver terminal (see fig. 2 #30, col. 3 lines 42-45).

Consider claim 45, this claim discusses the same subject matter as claim 1. Therefore, it has been analyzed and rejected based upon the rejection to claim 1.

Consider claim 47, Bokhorst as modified by Gubbi and Liu discloses claim 45. Gubbi also teaches comprising comparing receiver capability information and received service component data type information, and determining which of the service components are required to be received based upon the comparison (see col. 11 lines 55-66). The motivation would have been in order to manage latency depending on the data type (see col. 11 lines 55-66).

Consider claim 48, Bokhorst as modified by Gubbi and Liu discloses claim 47. Gubbi also teaches comprising using a service component identifier to source the received service component data type information (see fig. 4, col. 11 lines 33-35 and 41-49). The motivation would have been in order to provide acknowledgements (see fig. 4, col. 11 lines 33-35 and 41-49).

Consider claim 49, Bokhorst as modified by Gubbi and Liu discloses claim 45. Gubbi also teaches comprising comparing receiver classification information and received service component classification information, and determining which of the service components are required to be received based upon the comparison (see col. 11 lines 52-60). The motivation would have been in order to manage latency depending on the type of data type (see col. 11 lines 52-60).

Consider claim 50, Bokhorst as modified by Gubbi and Liu discloses claim 49. Gubbi also teaches comprising using a service component identifier to source the received service component classification information (see fig. 4, col. 11 lines 33-35 and 41-49). The motivation would have been in order to manage latency depending on the data type (see col. 11 lines 52-60).

Consider claim 51, Bokhorst as modified by Gubbi and Liu discloses claim 50. Gubbi also teaches comprising automatically adjusting the classification setting in dependence on a sensing of a change in one or more terminal parameters (see col. 11

lines 62-67 and col. 12 line 1). The motivation would have been in order to manage

latency depending on the data type (see col. 11 lines 52-60).

Consider claim 52, Bokhorst as modified by Gubbi and Liu discloses claim 45.

Bokhorst also teaches a computer program as claimed in claim 45 embodied in a

mobile receiver terminal (see fig. 2 #30, col. 3 lines 42-45).

Conclusion

5.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the

Examiner should be directed to Marcos Batista, whose telephone number is (571) 270-

5209. The Examiner can normally be reached on Monday-Thursday from 8:00am to

5:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's

supervisor, Rafael Pérez-Gutiérrez can be reached at (571) 272-7915. The fax phone

number for the organization where this application or proceeding is assigned is (571)

273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for published

applications may be obtained from either Private PAIR or Public PAIR. Status

information for unpublished applications is available through Private PAIR only. For

more information about the PAIR system, see http://pair-direct.uspto.gov. Should you

have questions on access to the Private PAIR system, contact the Electronic Business

Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028.

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the receptionist/customer service whose telephone

number is (571) 272-2600.

/Marcos Batista/
Examiner

/Rafael Pérez-Gutiérrez/
Supervisory Patent Examiner, Art Unit 2617

10/16/2009